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| EXAMINER |
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LEVINE, ADAM L

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| ART UNIT | PAPER NUMBER |
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3625

| SHORTENED STATUTORY PERIOD OF RESPONSE | NOTIFICATION DATE | DELIVERY MODE |
|--|-------------------|---------------|
| 3 MONTHS | 03/29/2007 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/29/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/665,495

Applicant(s)

LIN ET AL.

Examiner

Adam Levine

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,10-12 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,10-12 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 2, 2007, has been entered.

Response to Amendment

Applicants' amendments and remarks filed February 2, 2007, are responsive to the office action mailed November 17, 2006. The amendments include a replacement abstract, significant amendments to the specification, amendments to the drawings, and amendments to all pending claims. Claims 1, 10-12, and 20 have been amended and are pending and considered in this office action.

Pertaining to amendments to the drawings

The replacement drawings filed February 2, 2006, are acknowledged. They are not substantive and were not filed in response to any specific drawing objection but rather were filed in order to conform with amendments to certain verbiage in the specification.

Pertaining to objections to the specification in the previous office action

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification was previously replete with terms that were not clear, concise and exact, and appeared to be a literal translation into English from a foreign document, abounding with grammatical and idiomatic errors.

Although the applicants have significantly clarified the specification, it continues to bear a large number of idiomatic and grammatical errors. The description of prior art has not been amended and continues to appear a literal translation into English from a foreign document. Please see below for further treatment of this matter.

Pertaining to objections to the claims in the previous office action

Claims 1,10-12, and 20 were objected to because they appeared in many instances to be a literal translation into English from a foreign document. There were a significant number of grammatical and idiomatic errors that failed to conform with current U.S. practice. The claims have been amended to overcome this objection. Please see below for further treatment of the newly amended claims.

Response to Arguments

Pertaining to claim rejections under 35 USC §102(b) in the previous office action

Applicant's arguments filed February 2, 2006, have been fully considered but they are not persuasive. In response to applicant's argument regarding claims 1, 10 and 12 that the present invention is directed at a semiconductor package while the prior art is directed at a power converter, a recitation of the intended use of the claimed

invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Applicants attempt to distinguish the prior art by arguing that it is directed to design of a power converter while the present application is directed to a semiconductor package. It should be noted that these are potentially the same, as a semiconductor package can be a power converter and a power converter can be constructed from a package of semiconductors. This is not however the most significant issue.

Even were the products different, the nature of the products is not determinative in this situation. The examiner notes that the application is not claiming a new, unique, novel, or nonobvious design for a semiconductor package. It is directed at a system and method for gathering and analyzing information that will be used to assemble a package. As such it is virtually identical to a system and method for gathering and analyzing information that will be used to assemble another package, such as a power converter, power supply, or multiconductor package for example. The only element that varies is the information conveyed. The information however, and in this context even the particular product assembled, not being a functional part of the method or system, is nonfunctional descriptive material and does not result in differentiation between the methods and systems. The method steps and system elements are the same. The information is not functionally involved in the recited steps of the method. Because it has no functional role in the method it is non-functional descriptive material. This descriptive material will not distinguish the claimed invention from the prior art in terms

of patentability, see *In re Gulack*, 703 F.2d 1381 , 1385, 217 USPQ 401, 404 (Fed. Cir. 1983). MPEP 2106). Again, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

The above explanation appeared in the previous office action and has not been addressed by applicants. In addition, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Applicants argue with regard to claims 11 and 20 that the prior art does not disclose an analysis module selected from a group of analysis modules and that the present analysis modules are distinguishable from the prior art because the informational contents of each analysis module are different. To the extent that the differences pertain to descriptive information alone this argument is treated above. It is noted that an "analysis module," to the extent disclosed and described in the present specification, could be anticipated by anything that analyzes information. It is also noted that applicants have amended their specification and claims so that they are now

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directed, potentially, at a single module in addition to a plurality rather than only a plurality as previously claimed. This is new matter and will be treated below.

Specification

The amendment filed February 2, 2007, is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Referring to the marked-up version of the substitute specification, the amendments on page 3 lines 20-22, page 4 lines 14-16, page 6 lines 17-18, page 7 lines 23-24, and claims 1, 11, 12, and 20, represent new matter because they change the disclosure to apply potentially to only one analysis module. The original specification disclosed only a plurality of analysis modules. The specification has not been checked to the extent necessary to determine the presence of all possible instances of the new matter. Applicant's cooperation is requested in correcting any additional instances of which applicant may become aware.

Applicant is required to cancel the new matter in the reply to this Office Action.

The disclosure is objected to because of the following informalities: although the applicants have significantly clarified the specification, it continues to bear a large number of idiomatic and grammatical errors. For example, in the clean version of the substitute specification, the first paragraph of the summary, line 8, "sending" should be "sends," at page 4 line 3, "comprises" should be "comprising" or "that comprises," and

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page 5 lines 6-8 are barely comprehensible, and "but not" in line 8 should be "but are not." These are just the first few examples noticed. Also, the description of prior art has not been amended and continues to appear a literal translation into English from a foreign document. The specification has not been checked to the extent necessary to determine the presence of all possible errors. Applicant's cooperation is requested in correcting additional errors.

Appropriate correction is required.

A substitute specification including the claims is required pursuant to 37 CFR 1.125(a) for the above noted reasons. A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

Claim Objections

Claim 12 is objected to because of the following informalities: "selected from selected from" should be "selected from." Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. **Claims 1,10-12, and 20, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.**

The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1,11,12, and 20, change the disclosure to apply potentially to only one analysis module. The original specification and claims disclosed only a plurality of analysis modules.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,10-12, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Vinciarelli (Paper No. 20060522; US Patent No. 6,110,213).

Vinciarelli teaches all of the limitations of claims 1, 10-12, and 20. For example, Vinciarelli discloses methods for designing and manufacturing electrical equipment using expert systems that accept design choices and specifications from a user and determine feasibility and manufacturability of the design using modules that perform analyses regarding various stress factors. Vinciarelli further discloses:

- inputting required information about a semiconductor package: by a user (see at least abstract, figs.5,8; column 4 lines 15-21); via an internet interface (see at least fig.5, column 2 lines 11-19); required information is selected from the group consisting of package type information, substrate information, substrate layer information (see at least column 8 lines 36-56, 66-column 9 line 11, column 20 line 55 – column 21 line 7, column 26 line 63 – column 27 line 28), die dimension information (see at least fig.6, column 3 lines 20-39, column 4 lines 15-21, column 6 lines 26-31, column 8 lines 23-35, 66-column 9 line 11, column 26 lines 40-52), thermal performance information (see at least abstract, column 1 lines 21-49), input terminal information, output terminal information, terminal pitch information (see at least abstract, column 2 lines 11-19, 28-41, column 3 lines 40-52). Please note: The "required information" is descriptive material and is not functionally involved in the recited steps of the method. Because it has no functional role in the method it is non-functional descriptive material. This descriptive material will not distinguish the claimed invention from the prior art in

terms of patentability, see *In re Gulack*, 703 F.2d 1381 , 1385, 217 USPQ 401, 404 (Fed. Cir. 1983). MPEP 2106).

- storing said required information in a database: (see at least fig.5, column 21 line 56 – column 22 line 8).
- generating at least one analysis result by at least one analysis module: selected from the group consisting of a thermal analysis module, circuit analysis module, stress analysis module, reliability analysis module, material analysis module, and substrate analysis module, according to said required information of said order (see at least figs.5-8, column 1 lines 30-35, 64-column 2 line 10, 20-25; column 3 lines 53-65, column 32 line 44 – column 33 line 3, column 35 lines 13-20).
- storing said analysis results in said database: (see at least column 32 line 44 – column 33 line 3).
- sending said analysis results to said user by a reply means: (see at least abstract, figs.7C,8; column 2 lines 11-19, column 21 lines 41-55. Please note: this is interpreted as reporting the analysis results to the user by any means).

Pertaining to system claims 1 and 10-11

System claims 1 and 10-11 are rejected based on the same rationale as noted above.

Conclusion

New matter in applicant's amendment necessitated the new ground of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam Levine whose telephone number is 571.272.8122. The examiner can normally be reached on M-F, 8:30-5:00 Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Smith can be reached on 571.272.6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adam Levine
Patent Examiner
March 24, 2007


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